

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
AB Specialty Silicones Fire - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V

**Subject:** POLREP #5  
Progress POLREP  
AB Specialty Silicones Fire

**Waukegan, IL**  
Latitude: 42.3929181 Longitude: -87.8938617

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**From:** Dan Haag, On-Scene Coordinator  
**Date:** 6/4/2019  
**Reporting Period:** 5/27/19 - 6/2/19

## 1. Introduction

### 1.1 Background

Site Number:	C5PB	Contract Number:
D.O. Number:		Action Memo Date:
Response Authority:	CERCLA	Response Type:
Response Lead:	PRP	Emergency
NPL Status:	Non NPL	Incident Category:
Mobilization Date:	5/4/2019	Removal Action
Demob Date:		Operable Unit:
CERCLIS ID:		Start Date:
ERNS No.:		5/4/2019
FPN#:		Completion Date:
		RCRIS ID:
		State Notification:
		Reimbursable Account #:

#### 1.1.1 Incident Category

Emergency Response

#### 1.1.2 Site Description

At approximately 2145 hours on 5/3/2019, an explosion occurred at the AB Specialty Silicones, LLC plant in Waukegan, Illinois (Site). The explosion could be felt for miles and damage was caused to numerous adjacent buildings. Waukegan Fire Department (WFD) extinguished the fire by 0330 hours on 5/4/19. The incident has left 4 dead.

#### 1.1.2.1 Location

AB Specialty Silicones, LLC is located at 3790 Sunset Avenue in Waukegan, Illinois

#### 1.1.2.2 Description of Threat

AB Specialty Silicones, LLC is a manufacturer and distributor of specialty silicone chemicals, serving industries including: personal care, chemical manufacturing, dental & medical, mold making, electronic encapsulation, adhesives/sealants, coatings, gypsum, and pressroom. Two primary products produced and stored at the facility include: octamethylcyclotetrasiloxane (product name D4) and polydimethylsiloxane (product name SF350). Plant representatives also stated that small quantities of toluene, isopropyl alcohol, acetone, phosphoric acid, acetic acid, and sodium hydroxide flake are stored and used at the plant.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

At 0100 hours on 5/4/19, Illinois EPA requested the assistance of U.S. EPA to conduct air monitoring downwind of the incident to support WFD. An EPA OSC and START contractors arrived on scene at approximately 0345 hours and to support WFD and LCHD with downwind air monitoring. Throughout the early morning hours and into the mid-day of 5/4/19, EPA and START conducted air monitoring with a MultiRae 5-gas meter in the adjacent neighborhood downwind (south of Site), which included an elementary school, daycare, church, apartment buildings (west of the Site), and adjacent business; no elevated readings were detected.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

At approximately 2145 hours on 5/3/2019, an explosion occurred at the AB Specialty Silicones, LLC plant in Waukegan, Illinois (Site). The explosion could be felt for miles and damage was caused to numerous adjacent buildings. Waukegan Fire Department (WFD) extinguished the fire by 0330 hours on 5/4/19. The incident has left 4 dead. On 5/9/19, the search and recovery effort conducted by Coroner and WFD concluded and control of the Site was turned back over to the AB Specialty Silicones, LLC. The cause of the explosion is still under investigation as of 5/7/19, and investigators state that it could take up to a month to pinpoint the cause of the explosion. Since 5/9/19, EPA has been coordinating with AB Specialty Silicones, LLC, CSB, and OSHA to direct response actions to mitigate actively releasing or threatened release of CERCLA hazardous substances at the site, while ensuring evidence preservation for ongoing investigations.

#### 2.1.2 Response Actions to Date

##### Operational Period - Week of 5/27 – 6/2

###### **Operations on Memorial Day**

Boom and sorbent inspection/maintenance/change-out continued throughout Memorial Day Holiday Weekend, and a vacuum truck crew remained on standby all weekend to support storm water management during rain events.

###### **Operations at Plant Site:**

Work to mitigate overhead hazards from within the high-bay warehouse building continued during the operational period and will remain an ongoing task throughout the duration of the response while work occurs within the structure.

An evidence storage warehouse was secured by the PRP for storage of material removed from the high-bay warehouse in accordance with an Evidence and Site Control Agreement executed as part of the ongoing CSB and OSHA investigations. A total of 4 van trailers of material were relocated from the high-bay warehouse to the evidence warehouse during the operational period. Material removed included empty containers, supplies, and containers of raw material and/or finished product. All containers are given a unique identification number, visually inspected for container integrity, decontaminated as needed, and screened with a PID for VOCs prior to loading for transfer to the evidence warehouse. Empty drums, supplies, and any non-hazardous material are being relocated to create a safer space to work inside the high-bay warehouse as well as to generate access to containers of CERCLA hazardous substance, DOT hazardous material and RCRA hazardous waste.

A second round of perimeter air samples were collected by the PRP's consultant and analyzed for asbestos in accordance with NIOSH Method 7400; results are pending. Additionally, 24-hour air samples were collected from the perimeter and from inside the high-bay warehouse and analyzed for VOCs in accordance with EPA Method TO-15; results are pending.

Since many of the siloxane-based raw materials and finished products may produce formaldehyde as a byproduct during combustion, EPA and START collected air samples from biased locations to determine if VOC readings inside the high-bay warehouse may be attributable to formaldehyde. Preliminary results indicate low levels of formaldehyde that likely are not a contributing factor to the VOC levels detected inside the warehouse.

Sludge located throughout the floor of the high-bay warehouse was removed where it was safe for crews to work and where the relocation of containers/totes provided access to crew and equipment. On 5/31 while crews were removing sludge, it was observed that some portions of the sludge solidified into an ice-like formation. VOC readings ranged from 5-35 ppm when approximately 3 feet away from the material and spiked to 120 ppm near the surface of the material. The ambient temperature during the afternoon on 5/31 was around 80 degrees F. EPA and START collected a sample of ice-like substance for analysis. The material is believed to be Andisil D4 (Octamethylcyclotetrasiloxane), which has a flashpoint of 134.6 degrees F and a melting/freezing point of 62.6 degrees F.

Storm water management from the Site continued during the operational period. Work included maintenance to the berms along the north and west boundaries of the Site and active collection of storm water runoff collected in the berms. A vacuum truck crew remained on standby after hours to support storm water management during rain events.

###### **Operations at Sunset Avenue Ditch:**

Daily inspection and maintenance of hard boom, sorbent boom and sorbent pom poms with change out as needed occurred during the operational period. A vacuum truck was utilized to remove recoverable sheen or product as needed.

###### **Operations at Wetlands and Osprey Lake Area:**

Daily inspection and maintenance of hard boom, sorbent boom and sorbent pom poms with change out as needed occurred during the operational period. An additional 100 ft of hard boom was added to the boom set located where the wetlands enters Osprey Lake during the operational period.

Wetlands specialists from the PRP's consultant conducted a walk of the wetlands and Osprey Lake area with EPA and START to aid in the preparation of a longer-term remediation plan. A meeting to discuss the draft remediation plan is being planned for the next operational period for all stakeholders in the plan.

#### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

#### 2.1.4 Progress Metrics

<b>Waste Stream</b>	<b>Medium</b>	<b>Quantity</b>	<b>Manifest #</b>	<b>Treatment</b>	<b>Disposal</b>
Contaminated sorbent/debris		2x20 yd rolloff			pending
Contaminated storm water		50,000 gals			pending

## **2.2 Planning Section**

### **2.2.1 Anticipated Activities**

#### **2.2.1.1 Planned Response Activities**

Planned activities for the next operational period (6/3 -6/9) include: 1) removal of containers/totes of raw product and/or finished goods and relocation to the evidence warehouse; 2) removal of drums potentially containing CERCLA hazardous substances, DOT hazardous materials and/or RCRA hazardous wastes located in the southwestern corner of the warehouse building (waste satellite accumulation storage area); 3) removal of contaminated debris from high-bay warehouse; 4) management of material inside the aboveground storage tanks; 5) continued management of stormwater runoff for the Site; and 6) continued daily inspection and maintenance of hard boom, sorbent boom and sorbent pom poms with change out as needed occurred

#### **2.2.1.2 Next Steps**

#### **2.2.2 Issues**

## **2.3 Logistics Section**

No information available at this time.

## **2.4 Finance Section**

### **Estimated Costs \***

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
TAT/START	\$45,000.00	\$25,000.00	\$20,000.00	44.44%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	<b>\$45,000.00</b>	<b>\$25,000.00</b>	<b>\$20,000.00</b>	<b>44.44%</b>

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## **2.5 Other Command Staff**

No information available at this time.

## **3. Participating Entities**

### **3.1 Unified Command**

AB Specialty Silicones, LLC  
U.S. Environmental Protection Agency

### **3.2 Cooperating Agencies**

Chemical Safety Board  
City of Gurnee Park District  
City of Waukegan Department of Public Works  
Illinois Environmental Protection Agency  
Illinois State Fire Marshal  
Lake County Department of Transportation  
Lake County Emergency Management Agency  
Lake County Health Department  
Lake County Stormwater Management Commission  
U.S. Department of Labor - Occupational Safety & Health Administration  
Waukegan Fire Department

## **4. Personnel On Site**

U.S. EPA - 1  
START - 1

## **5. Definition of Terms**

ATSDR: Agency for Toxic Substances and Disease Registry  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CSB: Chemical Safety Board  
DOT: U.S. Department of Transportation  
IEPA: Illinois Environmental Protection Agency  
LCEMA: Lake County Emergency Management Agency  
LCHD: Lake County Health Department  
LCSMC: Lake County Stormwater Management Commission  
mg/L: Milligrams Per Liter

NIOSH: National Institute for Occupational Safety and Health

OSC: On-Scene Coordinator

PCB: Polychlorinated Biphenyl

PEL: Permissible Exposure Limit

PID: Photoionization Detector

POLREP: Pollution Report

ppm: Parts Per Million

PRP: Potentially Responsible Party

START: Superfund Technical Assessment and Response Team Contractor

U.S. EPA: United States Environmental Protection Agency

VOC: Volatile Organic Compound

WFD: Waukegan Fire Department

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

#### **6.2 Reporting Schedule**

POLREPS to be submitted weekly.

## **7. Situational Reference Materials**

No information available at this time.



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